

Forum Series on the Role of Institutions in Promoting Economic Growth

The Lens of Contract: Applications to Economic Development and Reform

OLIVER WILLIAMSON

Forum 2

The Institutional Economics Approach to Aid Effectiveness

Session on the Effect of Contracting Mechanisms on Project Success

Presented: 25 February 2002

Final: 17 April 2002

Washington, D.C.



Forum Series on the Role of Institutions in Promoting Growth

Directed by The IRIS Center

Sponsored by USAID, EGAT/EM

SEGIR/LIR PCE-I-00-97-00042-00, TO 07



About the Series

The objectives of the Forum Series are to help USAID make its donor assistance more effective and sustainable by incorporating insights from the New Institutional Economics into USAID's programming and delivery of development assistance. Services for the Forum Series are provided by the Center for Institutional Reform and the Informal Sector (IRIS) and its consultants. Editor for the Series is its project director, Clifford Zinnes, with support from the Forums Steering Committee (Ed Connerley, Jim Elliott, Jonathan Sleeper, and Thom Truong), chaired by the activity's COTR, Fred Witthans. Funding for the Series is provided by USAID's Bureau for Economic Growth, Agriculture, and Trade, Office of Emerging Markets through the SEGIR/LIR contract PCE-00-97-00042-00, Task Order 07. Copyright 2002 by the IRIS Center.

The views and interpretations represented in this paper belong solely to its author and should not be attributed to USAID or to IRIS.

For information, contact:

Dr. Clifford F. Zinnes

Director of Research Coordination

The IRIS Center at the University of Maryland

2105 Morrill Hall

College Park, Maryland 20742

Voice: 301-405-3064

Fax: 301-405-3020

zinnes@iris.econ.umd.edu

The Lens of Contract:

Applications to Economic Development and Reform

OLIVER E. WILLIAMSON*

Edgar F. Kaiser Professor of Business Administration
Professor of Economics and Professor of Law; University of California, Berkeley

Presented: 25 February 2002

Final: 17 April 2002

“Oliver Williamson” <owilliam@haas.berkeley.edu>

James Buchanan (1964a, 1964b, 1975) distinguishes between economics as the science of choice and economics as the science of contract. The former describes the neoclassical research agenda. The latter is a more recent and still unfolding mode of analysis.¹ Much of the New Institutional Economics and virtually all of transaction cost economics works out of the lens of contract. The main purpose of this paper is to urge that the lens of contract be brought more systematically to bear on economic development and reform. As it turns out, that is a daunting exercise.

Section 1 sets out the landscape out of which the lens of contract works, with emphasis on the transaction cost economics branch of the New Institutional Economics. A program for implementing the comparative contractual approach is described in Section 2. Some applications to economic development and reform are sketched in Section 3. Concluding remarks and an Appendix (which reflects on some of the obstacles that I have encountered in writing this paper) follow.



1. The Lenses of Choice and Contract

1.1 big ideas

Hal Varian has recently distinguished between important ideas and Big Ideas and describes Ronald Coase's classic paper, "The Nature of the Firm" (1937) as a Big Idea (2002, p. C2). There is widespread agreement on this point. Yet the nature of the big idea is somewhat obscure and, whatever it was, took a long time to register. Thus as of 1972, thirty-five years after the publication of "The Nature of the Firm," Coase described his 1937 article as "much cited and little used" (1972, p. 63). It was much cited because it was onto something important, perhaps even big. But it was little used because the big idea was only dimly perceived and lacked operationalization (Coase, 1992, pp. 716-718).

I have since attempted to distill the essence of the Coasian contribution as follows (Williamson, 1994, p. 202):

Ronald Coase is a seminal thinker and has a timeless message. On my reading, the essence of Coase is this: (1) push the logic of zero transaction costs to the limit; (2) study the world of positive transaction costs; (3) because hypothetical forms of economic organization are operationally irrelevant, and because all feasible forms of organization are flawed, assess alternative feasible forms of organization in a comparative institutional way; and (4) because the action resides in the details, study the microanalytics of contract, contracting, and organization. That is a subtle and powerful combination of ideas and...much of it goes against the main tradition.

But what is the overarching idea out of which these work? According to Lars Werin, "what [Coase] has done is above all to add a new element, a category of costs which was missing and proved

to be of strategic importance” (2000, p. 45), namely transaction costs. Upon making provision for the “costs of running the economic system” (Arrow, 1969, p. 48), we will have a better understanding of economic organization. I do not disagree, but I would say that the really big idea was to reconceptualize the problem of economic organization in contractual terms with reference to specific puzzling phenomena. Thus rather than take the allocation of economic activity as between firms and markets as given (mainly determined by technology, sometimes with the boost of monopoly), Coase (1937) urged that firm and market be examined as alternative modes of contracting. Also, the crucial move in Coase’s 1960 article on “The Problem of Social Cost” was to reconceptualize the externality problem in contracting terms, whereupon a deeper understanding emerges. More generally, I contend that the big idea is to bring the lens of contract systematically to bear on economic phenomena of all kinds. For many transactions, of which the make-or-buy decision is one, the contractual structure is easily recognized. Other transactions, such as the externality problem, need to be reformulated to bring out their latent contractual features. In either event, the object is to uncover previously neglected but, often, consequential features, which discovery often leads to a different and, sometimes, deeper understanding than the orthodox lens of choice affords. If, as Buchanan declares, “mutuality of advantage from voluntary exchange is...the most fundamental of all understandings in economics” (2001, p. 29), then at least some of us should be thinking of economics as the “science of exchanges” (Buchanan, 2001, p. 28). Such a science will be partly rival but in many ways complementary to the orthodox science of choice.

1.2 the sciences of choice and contract²

Economics throughout the 20th century has been developed predominantly as a science of choice. As Lionel Robbins famously put it in his book, The Nature and Significance of Economic Reform Through the Lens of Contract Theory

Science (1932, p. 16), “Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses.” Choice has been developed in two parallel constructions: the theory of consumer behavior, in which consumers maximize utility, and the theory of the firm as a production function, in which firms maximize profit. Economists who work out of such setups emphasize how quantities are influenced by changes in relative prices and available resources, a project which became the “dominant paradigm” for economics throughout the twentieth century (Reder, 1999, p. 48).

But the science of choice is not the only lens for studying complex economic phenomena, nor is it always the most instructive lens. The other main but less fully developed approach is the science of contract. Indeed, Buchanan (1975, p. 225) avers that economics as a discipline went “wrong” in its preoccupation with the science of choice and the optimization apparatus associated therewith. What was needed is the parallel development of a science of contract. Awaiting this, some phenomena would go unnoticed, others would be poorly understood, and public policy error would result.

As perceived by Buchanan, the principal needs for a science of contract were to the field of public finance and took the form of public ordering: “Politics is a structure of complex exchange among individuals, a structure within which persons seek to secure collectively their own privately defined objectives that cannot be efficiently secured through simple market exchanges” (1987, p. 296; emphasis added). Thinking contractually in the public ordering domain leads into a focus on the rules of the game. Issues of a constitutional economics kind are posed (Buchanan and Tullock, 1962; Brennan and Buchanan, 1985).

Whatever the rules of the game, the lens of contract is also usefully brought to bear on the play of the game. This latter is what I refer to as private ordering, which entails self-help efforts by the

immediate parties to a transaction to align incentives and craft governance structures that are better attuned to their exchange needs. John R. Commons' prescient statement on the nature of the economic problem provides the unifying theme for the study of governance. Thus Commons advised that "the ultimate unit of activity...must contain in itself the three principles of conflict, mutuality, and order. This unit is the transaction" (1932, p. 4). Not only does transaction cost economics take the transaction to be the basic unit of analysis, but governance is the means by which to infuse order, thereby to mitigate conflict and realize mutual gain.

Although market competition serves these governance purposes in the context of the "simple market exchanges" to which Buchanan made reference (which is wholly in the spirit of orthodox price theory), transaction cost economics is predominantly concerned with complex market exchange where there are small numbers of parties on each side of the transaction. Rather than examine such issues with the price-theoretic apparatus of oligopoly or oligopsony, transaction cost economics focuses instead on the strategic hazards that are posed (many in the context of bilateral trading) and the cost-effective deployment of governance to mitigate these hazards. Strategic issues that had been ignored by neoclassical economists from 1870 to 1970 now make their appearance (Makowski and Ostroy, 2001, pp. 482-483, 490-491).

Figure 1 (at the end of the paper) sets out the main distinctions. The initial divide is between the science of choice (orthodoxy) and the science of contract. The latter then divides into public (constitutional economics) and private ordering parts, where the second is split into two related branches. One branch deals with ex ante incentive alignment (mechanism design, agency theory, the formal property rights literature) while the second features the ex post governance of contractual relations (contract implementation). Albeit related, these two are in tension. Thus whereas transaction

cost economics locates the main analytical action in the ex post stage of contract (where maladaptation problems appear), the formal incentive alignment literature annihilates ex post governance by assuming common knowledge of payoffs and costless bargaining.³ These are heroic assumptions.

2. Implementation

Had Moliere been asked, he would have told us the obvious: economists and, even more, business men and women, have not only been speaking prose these past thirty years, but many have been thinking contractually. Indeed, that is to be expected if, in fact, thinking contractually uncovers core issues. It is often possible, however, to improve upon good intuitions by making explicit that which is implicit. Five key moves for operationalizing the lens of contract are described.

2.1 human actors

(a) concept

Herbert Simon advises social scientists that “Nothing is more fundamental in setting our research agenda and informing our research methods than our view of the nature of the human beings whose behavior we are studying” (1985, p. 303). Simon thereafter makes reference to the cognitive ability and self-interestedness of human actors as two key attributes. Of these two, he places primary attention on cognition. As against science of choice setups that ascribe extraordinary powers of cognition (akin to hyperrationality) to human actors, Simon recommends that cognition be described instead as bounded rationality—behavior that is intendedly rational, but only limitedly so (Simon, 1957, p. xxiv).

Transaction cost economics also subscribes to bounded rationality, whereupon all complex contracts are unavoidably incomplete—which marks a major departure from orthodoxy. Also, transaction cost

economics describes self-interest seeking in terms of opportunism,⁴ whereupon strategic hazards are posed.

A third move that is pertinent to the lens of contract/private ordering/governance is that human actors, especially in the context of commercial contracting, have the capacity to look ahead, recognize contractual hazards, and craft suitable responses. The contrast between George Shultz and Nicolai Machiavelli in this connection is noteworthy.

Machiavelli, in effect, advised his prince to breach contracts with impunity: “a prudent ruler ought not to keep faith when by doing so it would be against his interest, and when the reasons which made him bind himself no longer exist.... [L]egitimate grounds [have never] failed a prince who wished to show colourable excuse for the promise” (Gauss, 1952, pp. 92-93). By contrast, Shultz had the benefit of “training in economics [, which] has had a major influence on the way I think about public policy tasks, even when they have no particular relationship to economics. Our discipline makes one think ahead, ask about indirect consequences, take note of variables that may not be directly under consideration” (1995, p. 1). As discussed in 2.3, below, the Shultz view is much more in the spirit of mitigating contractual hazards by giving and receiving credible commitments. This is a fundamental governance move, the importance of which cannot be overemphasized.

(b) commentary

But for the fact that contracts are incomplete, there would never be the need to appeal to ex post governance in support of contract execution.⁵ Given, however, that complex contracts have gaps, errors, and omissions (by reason of bounded rationality) and will pose potential contractual conflicts (by reason of opportunism) when pushed out of alignment by unanticipated disturbances, the need for adaptation is posed.

Interestingly, as against the emphasis on equilibrium economics of a lens of choice kind, both Friedrich Hayek (1945) and Chester Barnard (1938) name adaptation as the central problem of economic organization. They have reference, however, to adaptations of different kinds.

According to Hayek, “economic problems arise always and only in consequence of change” (1945, p. 523), whence “the economic problem of society is mainly one of rapid adaptation in the particular circumstances of time and place” (1945, p. 524). Barnard likewise featured adaptation, albeit of a different kind. On Barnard’s reading, “the survival of an organization depends upon the maintenance of an equilibrium of complex character.... [This] calls for readjustment of processes internal to the organization..., [whence] the center of our interest is the processes by which [adaptation] is accomplished” (1938, p. 6). Whereas the adaptations to which Hayek refers are autonomous adaptations in which individual parties respond to market opportunities as signaled by changes in relative prices, the adaptations of concern to Barnard are cooperative adaptations accomplished through administration within the firm. Because a high performance economic system will display adaptive capacities of both kinds, an understanding and appreciation for both markets and hierarchies (rather than the mistaken dichotomy between markets or hierarchies) is needed. The firm for these purposes is described not as a production function (which is a technological construction) but as a governance structure (which is an organizational construction). And the market is described similarly. The lens of contract, as against the lens of choice, is made the cutting edge.⁶

One of the advantages of focusing on adaptation as the main case is that it brings added meaning to the idea of mutual gain. It is elementary that gains from trade will always be realized by moving onto the contract curve. Albeit important, this does not relate to the needs of complex contracting—according to which contracts are incomplete and are implemented over time in the face of

disturbances for which contingent provisions either have not been made or, if made, are often in error. Crafting governance structures that are attuned to the hazards and help the parties to restore efficiency (return to the contract curve) where otherwise a costly impasse would develop thus has much to recommend it. More attention to designing processes that have good adaptive properties (and less to concentrating all of the action in the ex ante incentive alignment stage) is thus one of the lessons of contract/governance.

Another advantage is that adaptive systems invite us to think about learning. Learning is an important but underdeveloped feature of the lens of contract setup.

2.2 unit of analysis

(a) concept

Various units of analysis for studying economic organization have been recommended (Williamson, 2002b). Upon adopting a contractual approach to economic organization, it is natural to name the transaction as the basic unit of analysis. Albeit crucial to the follow-on research agenda, naming a unit of analysis is merely the first step. Operationalizing the proposed unit of analysis is also needed. Many would-be units of analysis remain merely intriguing ideas for lack of operationalization. Indeed, lacking operationalization, some would-be units of analysis serve to obfuscate rather than inform.

The key attributes of transactions to which transaction cost economics refers are the frequency with which transactions recur, the uncertainty (disturbances) to which they are subject, and the condition of asset specificity. The last dimension gives rise to bilateral dependency, whereupon what may have been a large numbers supply condition at the outset gets transformed into a small numbers exchange

relation thereafter. Asset specificity takes a variety of forms—physical assets, human assets, site

specificity, dedicated assets, brand name capital, and temporal specificity—to which individuated governance structure responses accrue. The condition of asset specificity is the big locomotive to which transaction cost economics owes much of its predictive content.

(b) discussion

By contrast with earlier work on the theory of the firm (Holmstrom and Tirole, 1989) and in the field of industrial organization (Peltzman, 1991), transaction cost economics has generated a large and growing body of empirical research.⁷ Indeed, but for its empirical relevance, transaction cost economics would have attracted much less interest among public policy analysts (Dixit, 1996). Because, however, the attributes of transactions (and, for that matter, of governance structures) are rarely reported in published sources, empirical research in transaction cost economics often requires the collection of original data.

That is a cost, but as Kenneth Arrow observes, it is also a strength (1987, p. 734; emphasis added):

Why...has the work of Herbert Simon, which meant so much to us all, nevertheless had so little direct consequence? Why did the older institutional school fail so miserably, though it contained such able analysts as Thorstein Veblen, J. R. Commons, and W. C. Mitchell?...[One answer is that] in fact there are important specific analyses, particularly in the work of the New Institutional Economics movement. But it does not consist primarily of giving new answers to the traditional questions of economics—resource allocation and the degree of utilization. Rather it consists of answering new questions, why economic institutions have emerged the way

they did and not otherwise; it merges into economic history, but brings sharper [microanalytic]...reasoning to bear than has been customary.

Taking the transaction as the basic unit of analysis has been instructive for examining a wide range of contractual and organizational phenomena—in intermediate product markets, labor markets, finance, corporate governance, public bureaus, and public policy that bears thereon (especially antitrust and regulation). Business strategy scholars have nevertheless recently posed the question as to whether relatedness among transactions should be featured more prominently, in which case clusters of transactions are examined (Nickerson and Zenger, 2000). Indeed, it might be asked, What is the appropriate unit of analysis to employ if the lens of contract is to be more productively brought to bear on economic development and reform? I return to a brief discussion of this issue in the Appendix.

2.3 credibility

(a) concept

The idea of credible commitment is to the play of the game (contract) what security of expectations is to the rules of the game (property rights). Indeed, both have similar effects. A polity in which property rights are insecure will induce investors to demand a risk premium and to front load the returns. That is because the ownership, uses, and net receipts of an investment are in jeopardy if future adverse changes in the rules of the game (of which expropriation, regulations, price controls, and confiscatory taxes are examples) are easy to make. Not only will the amount of investment be reduced but the composition of investments will change.⁸ Some activities will be moved to an underground economy.

Similar considerations apply to private ordering. Thus consider a buyer and seller of a good or service and assume that the good can be produced either by a general purpose technology or by a

special purpose technology. The advantage of the special purpose technology is that it permits the product to be supplied at lower cost (often with special design features), but it also requires the supplier to make specialized, durable investments that can be deployed to alternative uses only at a loss of productive value should the contract break down. A farsighted supplier will recognize these hazards and will ask the buyer to provide safeguards, the effect of which will be to relieve risk and deter breakdown in the event of unanticipated disturbances that push the parties off of the shifting contract curve. (Safeguards could take the form of penalties for premature breach and the creation of specialized dispute settlement mechanisms, the purpose of which is to preserve continuity rather than permit fracture; in the limit, the buyer could decide to internalize the hazards by deciding to make rather than buy.)

Let k denote the magnitude of the hazard, where $k = 0$ for generic supply and $k > 0$ if specific investments are undertaken. Let s denote safeguards, where $s = 0$ if no safeguards are provided and $s > 0$ if credible commitments are introduced into the contract. Node A in Figure 2 (see the end of the paper) corresponds to the ideal transactions in law and economics where there is no dependency between buyer and seller ($k = 0$) and competition provides the requisite safeguards. Node B poses unrelieved contractual hazards, in that specialized investments are exposed ($k > 0$) for which no safeguards have been provided ($s = 0$). Node C is the credible commitment node, in that specialized investments ($k > 0$) have now been provided with added security ($s > 0$). It is elementary that the price at which product will be supplied at node C will be less than at node B. Indeed, because the farsighted buyer is aware that he will receive product on better terms if he provides cost-effective safeguards, he has the incentive to offer them (even if not requested). The credible commitment node is thus the contractual answer to Machiavelli's advice to breach contracts with impunity when circumstances

change. Farsighted players will realize mutual gains accrue by the offer and acceptance of credible commitments.

(b) commentary

The realization of mutual gain is the core purpose of governance. Parties to a contract do not passively accept latent hazards but can and do actively participate in hazard mitigation through the design of governance. Sometimes penalties will suffice. Sometimes the scope of a contract may be enlarged as a means by which to infuse confidence through “hazard equilibration”—for example, reciprocal trade will sometimes supplant unilateral trade because trading hazards are mitigated when both have a stake in avoiding breakdown (Williamson, 1985, Chap. 9). And sometimes hierarchy will appear.

The idea, moreover, that parties to a transaction need not be passive participants but can actively participate in the design of the governance structure carries over to adversary relationships. Thus consider farsighted repositioning in the context of “bad games,” of which the prisoners’ dilemma is the most famous example. The game involves two criminals who have been apprehended and face jail time of, say, three years if both persist with claims of innocence. Being smart, the police confront each criminal separately with an inducement to confess: if you confess and the other does not, you will receive a light sentence (say one year) while the other will get a draconian sentence of fifteen. But should both confess, each is sentenced to ten years. Unable to coordinate, the dominant strategy for each criminal is to confess.⁹ The cops win.

A little remarked but important asymmetry is built into this game: only the police are farsighted; the criminals are myopic. But what if the criminals (or others who work with the criminals) are not so dumb after all. Might the payoffs of the prisoners’ dilemma game be transformed by “organization”?

Thus suppose that the police are known to play the ruse by which each criminal is induced to confess. Would-be criminals (or their sponsors) who look ahead and recognize the hazards can sometimes alter the effective payoffs by bringing additional rewards and/or sanctions to bear. Indeed, this is an instructive way to think about what “organized crime” is up to. Not only are members of a mob advised never to confess, but they are further advised that confession carries additional penalties of a private ordering kind. Specifically, should both confess, both criminals are declared to be unreliable and are thereafter denied membership in the mob. If only one confesses and the other holds out, the defector is punished by the mob as soon as he is released from his light sentence whereas the holdout is promised aid for his family and legal assistance to get his sentence reduced. The cooperative strategy (neither confesses) can thus be induced by thinking ahead and embedding the game in a larger set of contingent payoffs.

To be sure, offsetting moves whereby the police provide “witness protection” are also possible, but these are costly and invite countervailing moves. More generally, the basic point is this: forward looking play, which is what credible contracting invites, often permits the players of bad contracts/games to convert them into better. Put differently, parties to a contract/game do not have to “play the cards you have been dealt” by the rule makers. Payoffs can often be improved by private ordering.

With reference to economic development and reform, the issues to be examined are these: First, can the rules of the game be reshaped in such a way as to provide the “investor” (e.g., USAID) with greater assurance that the intended purposes will be realized? Second, whatever the rules of the game, What credible contracting features can be introduced into the governance of the ongoing contractual relation to assure against breakdown, distortion, value dissipation, and the like? Asking and

answering this question will sometimes result in the choice of different projects and/or embedding projects in structures where the hazards of bad games are mitigated or otherwise reconfigured.

2.4 contract laws (plural)

(a) concept

The science of choice view of contract is that there is one single, all-purpose law of contract and that, disputes, should they arise, are decided by a court that is well-informed and possesses the requisite expertise. The lens of contract is more deferential to the cognitive limits of human actors (hence does not project costless court ordering) and places greater emphasis on dispute avoidance through private ordering. Specifically, as contracts become longer term and more complex, the legal rules tradition gives way to Karl Llewellyn's concept of contract as a framework (1931, pp. 736-737):

...the major importance of legal contract is to provide a framework for well-nigh every type of group organization and for well-nigh every type of passing or permanent relation between individuals and groups...—a framework highly adjustable, a framework which almost never accurately indicates real working relations, but which affords a rough indication around which such relations vary, an occasional guide in cases of doubt, and a norm of ultimate appeal when the relations cease in fact to work.

To be sure, access to the courts for purposes of ultimate appeal is important, in that it delimits threat positions. But the main contractual action now takes place in the context of private ordering. Most disputes, including many that under current rules could be brought to a court, are resolved by avoidance, self-help, and the like (Galanter, 1981, p. 2). That is because in “many instances the

participants can devise more satisfactory solutions to their disputes than can professionals constrained to

apply general rules on the basis of limited knowledge of the dispute” (Galanter, 1981, p. 4). The assumption that “the courts will get it right” is a convenient but overweening simplification (Tullock, 1996, p. 5).

Indeed, the decision to take a transaction out of the market and organize it internally goes beyond contract as framework to introduce yet another form of contract law. Because the courts decline to participate in (most) internal disputes, the implicit law of contract within the firm is that of forbearance law, the effect of which is that the firm becomes its own court of ultimate appeal. The coordination benefits that firms enjoy in relation to markets are attributable in significant degree to the fact that firms, but not markets, can exercise fiat in a timely way when differences or disputes arise.

(b) commentary

The upshot is that different modes of governance are defined in part by the dispute settlement mechanisms out of which they work. Simple transactions that are managed by market-like governance are more legalistic whereas complex transactions are embedded in governance structures in which bilateral cooperation is facilitated, thereby to work out the difficulties and salvage the transaction. Because it is not cost-effective to salvage simple transactions—in that each party can go its own way at little cost to the other—more complex governance is reserved for complex transactions. The lesson for development transactions is presumably similar: some projects do not warrant add-on governance (just walk away from them if breakdown occurs, since the assets (aid) is redeployable), but others will benefit from crafting supportive governance structures ex ante (since walking away will mean that productive but nonredeployable assets will be squandered).

2.5 remediableness¹⁰

(a) concept

The analytical ease of working out of a hypothetical setup (zero deadweight losses, zero transaction costs, benign governance) notwithstanding, the pressing need, always and everywhere, is to “study the world of positive transaction costs” (Coase, 1992, p. 717). Thus although contemplation (Coase, 1964, p. 195; emphasis added):

...of an optimal system may provide techniques of analysis that would otherwise have been missed,...in general its influence has been pernicious. It has directed economists’ attention away from the main question, which is how alternative arrangements will actually work in practice. It has led economists to derive conclusions for economic policy from a study of an abstract of a market situation. It is no accident that in the literature...we find a category “market failure” but no category “government failure.” Until we realize that we are choosing between social arrangements which are all more or less failures, we are not likely to make much headway.

Nirvana economics (Demsetz, 1969) carries a similar message.

As against a hypothetical ideal, transaction cost economics advances the remediableness criterion, according to which an extant mode of organization for which no superior feasible alternative can be described and implemented with expected net gains is presumed to be efficient. Note with respect to this criterion that, except as comparisons are made between de novo alternatives, remediableness makes reference to an extant alternative, which, in effect, is privileged in relation to rival alternatives that arrive later. This has major ramifications for reinterpreting the purported inefficiencies that are due to “path dependency”—where the purported inefficiencies rest on a comparison of new with extant alternative “as if,” counterfactually, both were de novo (in which case the extant alternative

enjoys no setup cost advantage over the would-be entrant). Even, moreover, if a proposed alternative is superior to an extant alternative when temporal cost differences are taken into account, there is a further need to examine implementation obstacles. If it is very costly to overcome the resistance, of either economic or political kinds of incumbents, then implementation with net gains may not be possible (Hennipman, 1995, p. 37). Finally, the remediableness criterion treats the efficiency of the extant mode that passes the first two tests as a rebuttable presumption (Williamson, 1996, Chap. 8). The institutional environment comes under scrutiny for this purpose.

As against the usual practice of “claiming” that allocative efficiency will be enhanced “upon supplanting price supports with lump-sum taxes,” remediableness asks in addition that (1) the requisite information upon which to base the lump-sum taxes be displayed (feasibility), (2) the pay-out mechanisms be described (implementation), and (3) legitimacy of political resistance be factored in.

(b) commentary

The remediableness criterion runs the risk of being too deferential to the status quo. Indeed, some might argue that if a superior feasible alternative existed, it would already have been invented. Or, if there are obstacles to implementation, just forget the project. But that is too pessimistic. The first purpose is to screen out proposals that rest on fanciful assumptions, which litter the landscape of public policy analysis. The second purpose is to recognize that resistance from incumbents who stand to lose may be legitimate. The third is to ask whether proposed methods for compensating losers qualify as credible. And the fourth is to rethink proposals that fail in feasibility and implementability respects. Sometimes a graduated way of introducing change will work because incumbents “retire” and a record of early success attracts skeptics to reconsider.

More generally, students of development and reform should be leery of nostrums. There is no single, best, all-purpose way to organize (e.g., markets or hierarchies) and there is no single, best, all-purpose way to effect reform. Instead, contracting is done in a conditional way—in which students of development and reform are armed with deep knowledge about the attributes of each institutional environment and each “transaction” and the relevant political and economic remediableness constraints that bear on both.

3. Some Applications

3.1 privatizing telecommunications

Brian Levy and Pablo Spiller (1994) appeal to both property rights and contract reasoning in their study of privatizing telecommunications in five countries. There are three basic propositions:

(1) polities where it is difficult for one political administration to bind successor administrations pose insecurity of property rights concerns; (2) property rights protections in such polities can, however, sometimes be accomplished by recourse to contract; and (3) countries are better advised not to privatize public utilities if the polity is unable to communicate security of investment expectations and where a judicial tradition of credible contract (or license) enforcement is missing.

In effect, Levy and Spiller combine security of expectations reasoning with credible contracting reasoning. The first issue is to assess the polity. The basic regularity here is that parliamentary democracies (as compared with separation of powers democracies) are judged to be lacking in the ability to bind successor administrations. The second issue is to examine whether perceived insecurities of property rights can be relieved through recourse to contract. Will the courts reliably enforce a detailed contract (license) that carefully prescribes a process for amendment that shields the licensee against arbitrary and capricious changes? (Spiller and Vogelsang (1994) describe

this as the design of the “regulatory game.”) Where both insecurity of property rights (at the level of the polity) and lack of credible contract enforcement (by the courts) are projected, farsighted licensees will be prepared to pay little for the award of a license, hence unchanged nationalization may be the best of the flawed feasible alternatives.

3.2 massive or sequential reform

Jeffrey Sachs advises that reforms be massive in scope and implemented quickly (1992, p. 5):

Such an approach vastly cuts the uncertainties facing the public with regard to the new “rules of the game” in the economy. Rather than creating a lot of turmoil, uncertainty, internal inconsistencies, and political resistance, through a gradual introduction of new measures, the goal is to set in place clear incentives for the new economic system as rapidly as possible. As one wit has put it, if the British were to shift from left-hand side drive to right-hand side drive, should they do it gradually say, by just shifting the trucks over to the other side of the road in the first round?

Witty examples sometimes work, sometimes not. The auto-truck example assumes, in effect, that the entire economy is a large, indecomposable entity. In that event, a convex combination or a gradualist program invites chaos. Things should be done all one way or all another.

As Simon has observed, however, a regularity that is associated with all complex systems—be they physical, biological, social, or economic—is that they are nearly decomposable, in that the overall system is made up of subsystems within which interactions are frequent and extensive but between which interactions are comparatively infrequent and of an aggregative kind (1962, pp. 474-477).

Indeed, but for a hierarchical structure in which stable subsystems are the building blocks on which

complex systems rest, complexity is simply unlikely to evolve (Simon, 1962, p. 473). If hierarchy—whereby a complex system is composed of subsystems which in turn have subsystems—“is one of the central structural schemes that the architect of complexity uses”—then the basis for a pronouncement that, for political or economic reasons, an entire economy needs to be reformed massively and quickly is less than obvious. At the very least, the merits of orchestrating reform in a “modest, slow, molecular, definitive” way warrant examination.¹¹

The idea that piecemeal privatization will falter, result in turmoil and inconsistencies, and invite political resistance has nevertheless been embraced by other influential reform economists—including the team of Maxim Boycko, Andrei Shleifer, and Robert Vishny, who appealed to these arguments in explaining their program for rapid and massive reform of the Russian economy. Considerations of both Realpolitik and economic theory were invoked in support of this recommendation.

In the belief that “political influence over economic life was the fundamental cause of economic inefficiency” in Russia, (Boycko, Shleifer, and Vishny, 1996, p. 11), the Boycko et al. team took depoliticization to be the principal objective and privatization to be the means. Not only was massive and rapid privatization warranted for political reasons, but it was in accord with the economic theory of the firm on which Boycko et al. relied. Specifically, they appealed to the work by Sanford Grossman and Oliver Hart (1986), which views ownership as a system of control rights and treats the appropriate assignment of property rights as determinative (Boycko, Shleifer, and Vishny, 1995, p. 13). Once state-owned enterprises were privatized, effective restructuring by the new stakeholders would presumably follow (op cit., p. 150). In the confidence that the future would take care of itself, the mass privatization program that was begun in the spring of 1992 had purportedly reached a “triumphant

completion” in June 1994 (op cit., p. 8), by which date two-thirds of Russian industry was privately owned.

Alas, that was a premature verdict (Black, Kraakman, and Tarassova, 1999), but it is also too easy to conclude that the Russian program of privatization was deeply flawed after the fact. Was that predictable before the fact? Because those who might have advised differently were never consulted, that is conjectural. I submit, however, that many economists to which lens of contract reasoning is congenial would have expressed precaution.

I am not, for example, surprised that Kenneth Arrow, who has repeatedly made a place for organizations and institutions in his analysis of complex organization—for medical care (1963), market failure (1969), and the limits of organization (1974)—recommends gradualist rather than big-bang policies for reform. Thus Arrow advises that because “our expectations of the future affect what we do in the present” (2000, p. 12), it is important that early actions infuse later confidence. To attempt a “radical restructuring of the economy” means that “the whole system of expectations for the future is going to be altered” (2000, p. 12). Awaiting the resolution of uncertainties, investment responses will be cautious and tentative. Relatedly, Arrow is respectful of institutional learning: “the readjustment of institutions is an extended process.... The entrepreneurs have to learn their meaning; the institutions themselves have to learn how to operate” (2000, p. 13). Furthermore, “history matters a great deal in forming expectations” (2000, p. 13). The upshot is that “gradual transitions to market might be an improvement over abrupt changes” (2000, p. 13).

To be sure, there is a risk that a slow transition could be reversed. But slowness need not imply lack of commitment or warrant recourse to “shock therapy” (or other psychiatric prescriptions). A modest, slow, molecular, definitive program of privatization that moves from easy to complex and builds

on success as it progresses has much to recommend it. For one thing, successful privatization will create “new interests in favor of markets and against a return to central controls” (Arrow, 2000, p. 14). As against bandit capitalism, whereby insiders (often the former managers) are awarded control over state enterprises, the idea is to stimulate entrepreneurship in small enterprises and through new entry. Also, whereas there is merit in auctioning state enterprises in markets where competition (to include foreign competition) will provide discipline, the auctioning of natural monopolies is much more problematic. Where natural monopoly will persist, there are, in effect, no good choices. To hold otherwise is to repeat errors of the ages (Fisher, 1907), of which fanciful claims made on behalf of the all-purpose merits of franchise bidding for natural monopolies is an example (Demsetz, 1968; Posner, 1972)..

Arrow envisages a process of a decade or more to effect the transition. During this period, the government will have several roles to play, to include “helping to develop the legal and financial institutions needed for a modern viable economy, providing physical infrastructure to private industry, and managing a declining sector of heavy industry” (Arrow, 2000, p. 17). If things go well under the gradualist program, the early successes of private ordering will provide a climate in which the merits of secure expectations will be perceived by the polity and rules of the game to support more complex ventures are more apt to be provided. The experience in Vietnam, as reported by John McMillan and Christopher Woodruff (2000), is encouraging of this view if not corroborative.

3.3 challenges to the Washington consensus

Although the contractual way of thinking about development and reform still has a long ways to go, the contractual approach has nevertheless made headway. That is evident from Gerard Roland’s recent paper on “Transition: An Evolutionary-Institutionalist Perspective,” where he provides a

comparison between the “Washington consensus view” (orthodoxy) and the “Evolutionary-institutionalist perspective” (which is much closer to the lens of contract).

To be sure, one could argue that the Washington consensus is a straw man or has long since been discredited. Again, however, it is useful to be explicit, and that is what Roland does. On the possibility that the case for the Evolutionary-Institutional (E-I) perspective can be buttressed in relation to the Washington Consensus (WC) by making further appeal to lens of contract (LC) reasoning, I offer the following:¹²

view of reform complementarities

WC: Of absolute importance. Necessity to jumpstart the market economy by simultaneous introduction of all main reforms.

E-I: Very important but comprehensiveness of initial reforms not necessary provided initial reforms can create momentum for further reforms. Transitional institutions can develop and evolve gradually toward more perfect institutions.

LC: There are strong intertemporal complementarities. Not only are early successes hard to reverse, but they invite follow-on efforts. Institutional supports that are developed to support one class of activity can often be extended to others. Place block upon block in a sequential (and adaptive learning) way.

attitude toward initial conditions

WC: Create tabula rasa conditions for breaking existing communist state structure.

E-I: Use existing institutions to prevent disruption and social unrest while developing new institutions.

LC: Respect initial conditions as limits upon what can be done, where sometimes the shadow of the past (including religion) severely restricts what is acceptable and/or implementable.

main view of markets and liberalization

WC: Markets will develop spontaneously provided government does not intervene; supply and demand as focus of analysis.

E-I: Importance of institutional underpinnings needed to enhance market growth; minimum legal and contracting environment, law enforcement, political stability, building of business networks and long term partnerships; contracting agents and their institutional environment as unit of analysis.

LC: Markets are highly varied and operate with different degrees of efficacy, depending both on the rules of the game (with special emphasis on property and contract laws and the enforcement thereof) and, especially, on the nature of the transactions.

main attitude toward inefficient State Owned Enterprises

WC: Aggressive closing down.

E-I: Containment and politically feasible downsizing. Rely on evolutionary development of private sector to shrink state sector.

LC: The grave disabilities of State Owned Enterprises and regulation notwithstanding, there are some transactions for which the public bureau or the regulated firm is the best feasible mode (judged comparatively).

focus on privatization

- WC: Fast transfer of ownership in private hands via mass privatization to break government power and jumpstart market economy. Faith in market to ensure efficient resale.
- E-I: Emphasis on organic development of private sector. Emphasis on sales to outsiders to achieve efficient transfer of ownership from the start.
- LC: Faith in the market is a nostrum. More important is to have an understanding of economic organization. The market is a marvel, but many transactions require added support. Governance is an instrument to be deployed selectively.

3.4 the institutional environment

Philip Keefer and Mary Shirley's (2000) recent review of the institutional environment distinguishes between institutions and economic policy reforms and between formal and informal institutions. Among their interesting findings are these:

- (1) Whereas policy reforms focus on macroeconomic stability, getting the prices right, and promoting competition, the institutional environment (especially property and contract laws and their enforcement) bears on the security of property rights and the credibility of contracting. One of their central findings is that "countries with high levels of institutional quality and poor macroeconomic policies grew twice as fast as countries with the reverse combination" (Keefer and Shirley, 2000, p. 94). Such empirical findings invite follow-on study.
- Plainly the institutional environment is important and occupies a vital place on the institutional economics research agenda.

- (2) The distinction between formal and informal institutions is that the former are “embodied in constitutions, laws, the structure of state decision (the number of veto players and their mode of selection) and regulations enforced by judges, courts, police, bureaucracy, and the like” (2000, p. 96) whereas informal institutions are “norms of conduct, perhaps historical traditions or religious precepts” enforced by private rather than public ordering (2000, p. 96). They conclude that both are important and that recent claims on behalf of informal institutions are extravagant (2000, pp. 96-102).
- (3) They nevertheless advise that “the reform of informal institutions can often be easier than reforming the state” (2000, p. 96), and they furthermore make a place for private ordering in the context of “private credit bureaus and supporting dispute resolution” (2000, p. 103). If, as they contend, “improvements of formal institutions...[to] improve the security of property rights are difficult to attain” by multilateral agencies such as the World Bank, then greater reliance on informal and private ordering mechanisms may be warranted.

Their view that customs, traditions, norms, religion and the like are easier to reform than formal rules comes as a surprise. As I have discussed elsewhere (Williamson, 2000, pp. 596-598), informal institutions change very slowly. The path dependency issues to which Stanley Engerman, Stephen Haber, and Kenneth Sokoloff (2000) refer in their examination of differential performance among New World economies are also pertinent, as are the findings of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1999). The idea, moreover, that formal institutions are important yet beyond the reach of

multinational agencies in their efforts to effect reform is, to say the least, discouraging. Possibly this explains recourse to macroeconomic policies even though (see (1), above) the institutional environment, if it could be altered, has greater importance.

The recent summary of empirical research on “Legal Reforms and Development” by Kevin Davis and Michael Trebilcock (2001) is, to say the least, disconcerting. Their review of the evidence on property rights, contract law, and political and civil rights is that “there is little conclusive evidence that reforms in these areas have been effective in furthering development,” yet the empirical evidence does suggest that benefits accrue from “reforms that enhance the quality of institutions charged with the responsibility for enacting laws and regulations, and institutions charged with the subsequent administration and/or enforcement of those laws or regulations” (Davis and Trebilcock, 2001, p. 33).

One interpretation is that the laws on the books are not self-enforcing, hence are often window dressing. Credibility turns on whether integrity, or the lack thereof, is associated with enforcement. On this interpretation, ex ante incentives are less important than ex post governance. To this, however, I would add this conjecture: getting the ex ante property and contract laws right will be more important in regimes where there is greater confidence in the ex post mechanisms of governance (here, administration and enforcement). This is a researchable question.

3.5 bureaucracy

The sources and consequences of market failure are much more well understood than are the sources and consequences of bureaucratic failure. An informed choice requires that the two be treated symmetrically. Economists have been loathe to study bureaucracy, sometimes referring to it as the “swamp.” Government and quasi-government bureaucracies are still often described in nearly-benign or

antiseptic terms. As Robert Michels has advised us about oligarchy, however, “nothing but a serene

and frank examination of the oligarchical dangers of democracy will permit us to minimize these dangers” (1962, p. 370). The same applies to bureaucracy.

Proposals to use holding companies, supervisory councils, and the like to phase in privatization in the Czech Republic are illustrative. Thus Manuel Hinds recommended that two levels of management are needed to accomplish the transition: one at the enterprise level to manage operations, the other at the holding company level to manage resource flows across sectors (1990, p. 44). Inasmuch, moreover, as there are “considerable opportunities for fraud and other crimes...[by] the employees of a holding company, a supervisory agency is also needed. Such an agency...should report directly to the Prime Minister” (Hinds, 1990, p. 44). Enterprise managers, holding company managers, supervisory agencies, and Prime Minister—all with defined duties and hazard abatement assignments!

As Charles Morris (1980) has reminded us, we need to be mindful of the “costs of good intentions.” Although some of these may be only evident after the fact, others can be discerned aforethought if the relevant lens is brought to bear. Upon moving down to the transactional level of activity and examining the mechanisms through which the operation of recommended reforms must actually work, many of the disabilities will “leap out” (Williamson, 1985, Chap. 6). Once again, the action resides in the details—although working these through can be tedious. If, however, working at a high level of generality on problems of bureaucracy repeatedly fails to uncover key features, the choice is easy.¹³

4. Conclusions

If our experience with economic reform and development had been more successful, the prescription for the future would be for more of the same. Instead, there is widespread concern that

many of our efforts at reform and development have not been successful, even, in some cases, misguided. We would not be assembled here today were it not for serious misgivings.

Although I am not qualified to say whether or in what degree economic development and reform are in crisis, I am nevertheless reminded of the status of the field of industrial organization in the 1970's, when antitrust and regulatory policies and their enforcement were definitely in crisis. Part of the “solution” to this crisis was to bring the lens of contract to bear on issues where the lens of choice had failed or faltered. As Avinash Dixit observes in his monograph on The Making of Economic Policy: A Transaction-Cost Politics Perspective (1996), not only has the study of business and industrial organization benefitted from developing “richer paradigms and models based on the concepts...of transaction costs,” but policy analysis more generally “stands to benefit from such an approach, opening the black box and examining the actual workings of the mechanism inside” (1996, p. 9).

To be sure, economic development and reform are very complex. Thus Coase in his Nobel Prize lecture observed that (1992, p. 714; emphasis added):

The value of including...institutional factors in the corpus of mainstream economics is made clear by recent events in Eastern Europe. These ex-communist countries are advised to move to a market economy, and their leaders wish to do so, but without the appropriate institutions no market economy of any significance is possible. If we knew more about our own economy, we would be in a better position to advise them.

Two years later, North, in his Nobel Prize lecture, expressed similar precautions. Thus even if we are confident that “polities significantly shape economic performance because they define and enforce the economic rules,” whereupon “an essential part of development policy is the creation of polities that will

create and enforce efficient property rights,” there is the further problem that “we know very little about how to create such polities” (North, 1994, p. 366; emphasis added).

The problem is that real time events cannot be put on hold. Because they must be addressed in real time, someone will step up and the question is whether such analysts will be more rather than less informed by institutional economics and the lens of contract reasoning.

My suggestion is that the lens of contract (both public and private ordering) be brought more systematically to bear on economic development and reform, learning and improving in the process. Substantial startup costs will nevertheless be incurred by those who accept this challenge. Not only will they need to become familiar with the conceptual moves that attend lens of contract reasoning, but they will also need to acquire transaction specific knowledge about the nature of economic aid and development. Albeit uncertain whether the value added of applying the lens of contract more systematically to development and reform will be much or little, it is noteworthy that there have been some accomplishments already.¹⁴ I project that more accomplishments are in prospect, and no one disputes that the needs are great. Accordingly, application of the lens of contract to development and reform has the earmarks of a proposal that cannot be refused—at least by those with interdisciplinary inclinations.

Footnotes

*The author is Edgar F. Kaiser Professor of Business Administration, Professor of Economics, and Professor of Law at the University of California, Berkeley.

1. Students of the history of thought will remind us that catallactics—meaning “the science of exchanges”—has much earlier origins. Indeed, a book by E. B. de Condillac on this subject was published in 1776, which is when The Wealth of Nations first appeared (see Murray Rothbard (1987, pp. 377-378) for an historical sketch). Recurrent interest in the science of contract notwithstanding, it has operated in the shadows of the science of choice. Why the disparity? Here as elsewhere, good ideas need to be operationalized. Contractual analysis has gotten under way in a sustained way only during the past 40 years.
2. This subsection is based on Williamson (2002).
3. For a recent formal model of contract that does not invoke costless bargaining and does focus on ex post governance, see Patrick Bajari and Steven Tadelis (2001).
4. This does not deny that most people will do what they say and some will do more most of the time. When, however, the stakes are great, defection from the spirit of a contract and to insist upon the letter is what opportunism projects.
5. Note that the “property rights theory of the firm” (Grossman and Hart, 1986; Hart and Moore, 1990; Hart, 1995), which is widely regarded as a formalization of transaction cost economics (Salanié, 1999) suppresses ex post governance issues by making two very strong assumptions: ex post payoffs are common knowledge and renegotiation to achieve the efficient ex post



Forum Series on the Role of Institutions in Promoting Growth

Directed by The IRIS Center

Sponsored by USAID, EGAT/EM

SEGIR/LIR PCE-I-00-97-00042-00, TO 07



outcome is costless. Not only is common knowledge of payoffs a very strong assumption (Kreps and Wilson, 1982), but the idea of costless bargaining over complex contractual impasses is gratuitous.

6. As Harold Demsetz remarks, it is “a mistake to confuse the firm of [orthodox] economic theory with its real-world namesake. The chief mission of neoclassical economics is to understand how the price system coordinates the use of resources, not the inner workings of real firms” (Demsetz, 1983, p. 377; emphasis added). Orthodox theory is focused on supply and demand, prices and output—which is well-suited to the needs of the resource allocation paradigm but unsuited to the needs of comparative contractual analysis.
7. Christopher Boerner and Jeffrey Macher (2001) examine over 600 published empirical transaction cost economics articles and report that most are corroborative of the predictions of the theory.
8. Hungary and Poland in the 1980s are illustrative. As Janos Kornai observes, craftsmen and small shopkeepers in Hungary were in favor of expropriation despite “repeated official declarations that their activity is regarded as a pertinent feature of Hungarian socialism” (1986, pp. 1705-06). That “many of them are myopic profit maximizers, not much interested in building up lasting goodwill...or by investing in long-lived fixed assets” (1986, p. 1706) is partly explained by the fact that “These individuals or their parents lived through the era of confiscations in the forties” (Kornai, 1986, p. 1705).

But there is more to it than that. Not only is there a history of expropriation, but, as of 1986, the structure of the government had not changed in such a way as to assuredly forestall subsequent expropriations. Official declarations will be more credible only with long experience

or if accompanied by a credible (not easily reversible) reorganization of politics. As one Polish entrepreneur remarked, “I don’t want expensive machines. If the situation changes, I’ll get stuck with them” (Newman, 1989, p. A10).

9. Repeated play of the prisoners’ dilemma game can also promote cooperation through reputations effects (Kreps, 1990). Reliance on reputation effects is a relatively passive response, however, and is subject to a number of limitations (Williamson, 1991b).
10. This subsection is based on Williamson (1999, p. 43).
11. The full quote is from Peguy (source unknown):

“The longer I live, citizen...”—this is the way the great passage in Peguy begins, words I once loved to say (I had them almost memorized)—“The longer I live, citizen, the less I believe in the efficiency of sudden illuminations that are not accompanied or supported by serious work, the less I believe in the efficiency of sudden passions, and the more I believe in the efficiency of modest, slow, molecular, definitive work. The longer I live the less I believe in the efficiency of an extraordinary sudden social revolution, improvised, marvelous, with or without guns and impersonal dictatorship—and the more I believe in the efficiency of modest, slow, molecular, definitive work.”

12. The entries appearing under WC and E-I are from Roland, Table 1. The LC entries are (largely) complementary to E-I but reflect more concerted use of the lens of contract.
13. This does, however, impose the cost on the student of economic organization to study organization theory (of a positive rather than normative kind).

14. Some are discussed in Section 3. It is nevertheless disconcerting that the lessons of the New Institutional Economics do not play a more significant role in the development and reform literatures.

Appendix

Some Limits and Lessons of Lens of Contract Reasoning for Economic Development and Reform

Although I am persuaded that the governance approach has wide application, it plainly has greater application to some fields than to others. The earliest applications were to industrial organization, labor organization, finance, and corporate governance, with public policy emphasis on antitrust and regulation. Subsequent applications have since been made in organization theory, political science, and business strategy. Also, as the text discloses, applications to economic development and reform have also been made.

This paper nevertheless makes less headway with applications of the last kind than I had hoped. I reflect here on some of the reasons why industrial organization has been more amenable on comparative contractual analysis than have been efforts to apply the lens of contract to development and reform.

1. paradigm problem

The make-or-buy issue on which Coase (1937) focused was the obvious problem to tackle first. This was a fortuitous choice for several reasons. First, vertical integration was a puzzle of theoretical interest for which orthodoxy provided only a limited explanation. Second, vertical integration had antitrust significance. Third, some of the problems of efficient risk bearing (which purportedly beset labor market organization) and disparities of information and expertise (which beset consumer markets) are less severe in intermediate product markets. As the record shows, an examination of long term,

incomplete contracts in the context of make-or-buy uncovered hitherto unnoticed but possibly important

contractual hazards for which—at least to the student of organization—recourse to unified ownership and hierarchical governance to relieve these hazards had obvious merit. Transaction cost differences between markets and hierarchies thus became the obvious cutting edge. Once, moreover, the make-or-buy problem had been so addressed, applications to other transactions followed naturally. Governance truly was the means by which to infuse order where prospective conflict threatened to upset contractual opportunities to realize mutual gain.

Vertical integration raises contractual issues that are also pertinent to development and reform, but it is not at all obvious that it qualifies as a paradigm problem. But what then is the problem in the field of development and reform that has paradigmatic status? Once named, the challenge will be to pose it (possibly reformulate it) in contractual terms and work out the ramifications. In the interim, extant lens of contract apparatus can be informative but should not be applied as a forced fit.

2. deep knowledge

I had the benefit of having taught and done research in industrial organization, applied welfare economics, organization theory, and having served for a year as Special Economic Assistant to the head of the Antitrust Division of the U.S. Department of Justice before tackling vertical integration. In short, I had a lot of relevant background. By contrast, my background in development and reform is limited. Thus although I can sometimes relate to such problems when put to me, I lack a sense of priorities and am often uncertain of the value added. Put differently, one of the costs—which, however, is also a benefit—of doing comparative contractual analysis is that the analyst needs to be knowledgeable of particularities. The details matter. The contrast between this state of affairs and that of axiomatic economic theory has been noted by others (Hahn, 1991).

3. complexity

The condition of the institutional environment constant is commonly taken to be that of the U.S. or of Western democracies when doing comparative contractual analysis of an applied microeconomics kind. Additional complications are posed by differences in the institutional environment when attention is shifted to the study of development and reform. A combined rules of the game/play of the game analysis is a more demanding exercise, especially in the context of more complicated units of analysis.

4. unit of analysis

At least as important as the choice of a paradigm problem is the choice of the unit of analysis. Indeed, these are apt to be chosen together. Nominating a unit of analysis, moreover, is much easier than working out its critical attributes. Many would-be units of analysis that have great intuitive appeal founder for lack of dimensionalization.

The transaction is arguably too microanalytic a unit of analysis for the purposes of doing economic development and reform. Is it better to think of the relevant unit as the "deal," which may be a related set of transactions? Or is the "project" the relevant unit? Might the "industry" be the appropriate unit of analysis for purposes of orchestrating the sequence of reform (Arrow, 2000)? Who is contracting with whom? If learning is part of the exercise, how is that brought out? Do these units have comparative institutional significance? Questions proliferate.

5. remediableness

Keefer and Shirley tell us that the World Bank and other multinational organizations have been notably unsuccessful in bringing about changes in the formal institutional environment. "Greater checks and balances, independent judiciaries, federalism or constraints on executive action...[or even] attempts to strengthen civil services...[or making] training and aid conditional on government action have proven

Reform Through the Lens of Contract Theory 3 2/25/2002

largely ineffective” (2000, p. 103). Maybe the lesson is to come to terms with the realities of the remediableness criterion. Unable to implement such changes, don’t try.

Inasmuch, however, as (1) we often learn more from failures than from successes, (2) failures themselves vary, and (3) failures sometimes are attributable to structural features or weaknesses of will in the originating agencies, passive acceptance is a puny response. Just as Levy and Spiller discovered that the contractual perspective helped to uncover reasons for differential success in privatizing telecommunications, can this strategy be applied to development and reform more generally? If, moreover, the agencies that administer development and reform put themselves at political risk (for example, of budgetary curtailments) from taking tough positions, that should be confronted rather than ignored.

Note, moreover, that the lens of contract can also be directed inward, to the management of transactions within multinational agencies. What are the formal and informal rules of the game within these bureaucracies? Do they elicit both intended and unintended effects? What to do?

References

- Arrow, Kenneth (1963) "Uncertainty and the Welfare Economics of Medical Care," American Economic Review, 53 (December): 941-973.
- Arrow, Kenneth (1969) "The Organization of Economic Activity: Issues Pertinent to the Choice of Market Versus Nonmarket Allocation," in The Analysis and Evaluation of Public Expenditure: The PPB System. Vol. 1. U.S. Joint Economic Committee, 91st Congress, 1st Session. Washington, DC: U.S. Government Printing Office, pp. 59-73.
- Arrow, Kenneth (1974) The Limits of Organization. First ed. New York: W. W. Norton.
- Arrow, Kenneth (1987) "Reflections on the Essays," in George Feiwel, ed., Arrow and the Foundations of the Theory of Economic Policy. New York: NYU Press, pp. 727-734.
- Arrow, Kenneth (2000) "Economic Transition: Speed and Scope," Journal of Institutional and Theoretical Economics, 156 (March): 9-18.
- Bajari, P. and S. Tadelis (2001) "Incentives Versus Transaction Costs: A Theory of Procurement Contracts." Rand Journal of Economics 32(Autumn): 387-407
- Barnard, Chester (1938) The Functions of the Executive. Cambridge: Harvard University Press (fifteenth printing, 1962).
- Black, Bernard, Reinier Kraakman, and Anna Tarassova (1999) "Russian Privatization and Corporate Governance: What Went Wrong?" Stanford Law School, unpublished manuscript.
- Boerner, Christopher and Macher, J. (2001) "Transaction Cost Economics: A Review and Assessment of the Empirical Literature." unpublished manuscript.
- Boycko, Maxim, Andrei Shleifer, and Robert Vishny (1995) Privatizing Russia. Cambridge, MA: MIT Press.
- Brennan, G. and J. Buchanan (1985) The Reason of Rules. Cambridge: Cambridge University Press.
- Buchanan, James (1964a) "Is Economics the Science of Choice?" in E. Streissler, ed. Roads to Freedom. London.
- Buchanan, James (1964b) "What Should Economists Do?" Southern Economic Journal, 30 (January): 312-322.
- Buchanan, James (1975) "A Contractarian Paradigm for Applying Economic Theory," in Microeconomic Theory: Conflict and Contract: Papers and Proceedings, American Economic Review, 65 (May): 225-230.
- Buchanan, J. M. (1987) "The Constitution of Economic Policy" American Economic Review, 77(June): 243-250.
- Buchanan, J. M. (2001) "Game Theory, Mathematics, and Economics". Journal of Economic Methodology, 8(March): 27-32.
- Buchanan, J. M. and Gordon Tullock (1962) The Calculus of Consent. Ann Arbor, MI: University of Michigan Press.
- Coase, Ronald H. (1937) "The Nature of the Firm," Economica, 4: 386-405.
- Coase, Ronald H. (1964) "The Regulated Industries: Discussion," American Economic Review, 54 (May): 194-197.

- Coase, Ronald H. (1972) "Industrial Organization: A Proposal for Research," in V. R. Fuchs, ed., Policy Issues and Research Opportunities in Industrial Organization. New York: National Bureau of Economic Research, pp. 59-73.
- Coase, Ronald H. (1992) "The Institutional Structure of Production," American Economic Review, 82 (September): 713-719.
- Commons, John R. (1932) "The Problem of Correlating Law, Economics, and Ethics," Wisconsin Law Review, 8:1, pp. 3-26.
- Davis KE, Trebilcock MJ (2001) "Legal Reforms and Development" Third World Quarterly 22 (1): 21-36
- Demsetz, Harold (1968) "Why Regulate Utilities?" Journal of Law and Economics, 11 (April): 55-66.
- Demsetz, Harold (1969) "Information and Efficiency: Another Viewpoint," Journal of Law and Economics, 12 (April): 1-22.
- Dixit, Avnish (1996) The Making of Economic Policy: A Transaction Cost Politics Perspective. Cambridge, MA: MIT Press.
- Engerman, Stanley, Stephen Haber, and Kenneth Sokoloff (2000) in Claude Menard, ed. Institutions, Contracts, and Organizations, Edward Elgar, Northampton, MA. pp. 108-134.
- Fisher, W. L. (1907) "The American Municipality," in Commission on Public Ownership and Operation, ed., Municipal and Private Operation of Public Utilities, Part I, New York, I: 36-48.
- Galanter, M. (1981) "Justice in Many Rooms and Courts, Private Ordering and Indigenous Law." Journal of Legal Pluralism 19: 1-47.
- Gauss, Christian (1952) "Introduction" to Machiavelli (1952), pp. 7-32. (Niccolo Machiavelli, The Prince. New York: New American Library.)
- Grossman, Sanford and Oliver Hart (1986) "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." Journal of Political Economy, 94(August): 691-719.
- Hahn, Frank (1991) "The Next Hundred Years." The Economics Journal, 101(1), pp. 47-50.
- Hart, Oliver (1995). Firms, Contracts and Financial Structure. New York: Oxford University Press.
- Hart, Oliver and J. Moore (1990) "Property Rights and the Nature of the Firm." Journal of Political Economy, 98 (December): 1119-1158.
- Hayek, Friedrich (1945) "The Use of Knowledge in Society," American Economic Review, 35 (September): 519-530.
- Hennipman, Pieter (1995) Welfare Economics and the Theory of Economic Policy. Brookfield, VT: Edward Elgar.
- Hinds, Manuel (1990) "Issues in the Introduction of Market Forces in Eastern European Socialist Economies," The World Bank. Report No. IDP-0057.
- Holmstrom, Bengt, and Jean Tirole (1989) "The Theory of the Firm," in Richard Schmalensee and Robert Willig, eds., Handbook of Industrial Organization. New York: North Holland, pp. 61-133.

- Keefer, Philip and Mary Shirley (2000) "Formal versus Informal Institutions in Economic Development," with Philip Keefer in Claude Menard (ed.) Institutions, Contracts, Organizations: Perspectives from New Institutional Economics Williston, VT: Edward Elgar.
- Kornai, Janos (1986) "The Hungarian Reform Process," Journal of Economic Literature, 24 (December): 1687-1737.
- Kreps, David and Robert Wilson (1982) "Reputation and Imperfect Information," Journal of Economic Theory, 27: 253-279.
- Kreps, David (1990) "Corporate Culture and Economic Theory," in James Alt and Kenneth Shepsle, eds., Perspectives on Positive Political Economy. New York: Cambridge University Press, pp. 90-143.
- La Porta R, Lopez-De-Silanes F., Shleifer A., Vishny R. (1999) "The Quality of Government" Journal of Law Economics and Organization 15 (1): 222-279
- Levy, Brian and Pablo Spiller (1994) "The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecommunications Regulation," Journal of Law, Economics and Organization, 10, No. 1 (October): 201-246.
- Llewellyn, Karl N. (1931) "What Price Contract? An Essay in Perspective." Yale Law Journal 40(May): 704-51.
- Makowski, Louis and Ostroy, J. (2001) "Perfect Competition and the Creativity of the Market" Journal of Economic Literature, 32(2), pp. 479-535.
- McMillan, John, and Christopher Woodruff (1999) "Dispute Prevention Without Courts in Vietnam," Journal of Law, Economics and Organization, 15 (3): 637-658.
- Michels, Robert (1962) Political Parties. Glencoe, IL: Free Press.
- Morris, Charles (1980) The Cost of Good Intentions. New York: W. W. Norton.
- Newman, Barry (1989) "Poland's Farmers Put the Screws to Leaders By Holding Back Crops," Wall Street Journal, October 25: A1 and A10.
- Nickerson, Jack and Todd Zenger. (2001) "A Knowledge-based Theory of Governance Choice -- A Problem Solving Approach," unpublished manuscript.
- North, Douglas 1994. "Economic Performance Through Time," American Economic Review, 84 (June): 357-368.
- Peltzman, Sam (1991) "The Handbook of Industrial Organization: A Review Article," Journal of Political Economy, 99 (February): 201-217.
- Posner, Richard A. (1972) "The Appropriate Scope of Regulation in the Cable Television Industry," The Bell Journal of Economics and Management Science, 3, No. 1 (Spring): 98-129.
- Reder, Melvin. (1999). *Economics: The Culture of a Controversial Science*. Chicago and London: University of Chicago Press.
- Robbins, Lionel (1932) An Essay on the Nature and Significance of Economic Science. New York, New York University Press.
- Roland. Gerard (2001) "Transition: An Evolutionary-Institutionalist Perspective", unpublished manuscript.
- Rothbard, Murray (1987) "Catallactics." The New Palgrave: A Dictionary of Economics (Vol. 1), by J. Eatwell, M. Milgate, and P. Newman (eds.). New York: The Stockton Press, pp. 377-378.

- Sachs, Jeffrey (1992) "The Economic Transformation of Eastern Europe: The Case of Poland", The American Economist, 36 (2), 290-298.
- Salanie, Bernard (1999) The Economics of Contracts, Cambridge MA, The MIT Press.
- Schultz, George (1995) "Economics in Action", American Economic Review, 85, May, 1-8.
- Simon, Herbert A. (1957) Models of Man. New York, Wiley.
- Simon, Herbert A. (1962) "The Architecture of Complexity," Proceedings of the American Philosophical Society, 106 (December): 467-482.
- Simon, Herbert A. (1985) "Human Nature in Politics: The Dialogue of Psychology with Political Science." American Political Science Review 79: 293-304.
- Spiller, Pablo, and Ingo Vogelsang (1994) "Regulations, Institutions, and Commitment in the British Telecommunications Sector," Policy Research Working Paper 1241, The World Bank, Washington, DC.
- Tullock, Gordon (1996) "Legal Heresy: President's Address to the Western Economic Association," Economic Inquiry, 34 (January): 1-9.
- Varian, Hal (2002) "If There Was a New Economy, Why Wasn't There a New Economics", New York Times, January 17, C2.
- Werin, Lars (2000) "Ronald Coase and the New Microeconomics", in Claude Menard, Institutions, Contracts, and Organizations, Edward Elgar, Northampton MA, pp.42-47.
- Williamson, Oliver E. (1985). The Economic Institutions of Capitalism. New York, The Free Press.
- Williamson, Oliver E. (1991) "Economic Institutions: Spontaneous and Intentional Governance," Journal of Law, Economics, and Organization, 7 (Special Issue): 159-187.
- Williamson, Oliver E. (1994) "Evaluating Coase", Journal of Economic Perspectives, 8, Spring, 201-204.
- Williamson, Oliver E. (1996) The Mechanisms of Governance. New York, NY, Oxford University Press.
- Williamson, Oliver E. (1999) "Public and Private Bureaucracies," Journal of Law, Economics, and Organization, 15 (1): 306-342.
- Williamson, Oliver E. (2000) "The New Institutional Economics: Taking Stock, Looking Ahead," Journal of Economic Literature, 38: 595-613.
- Williamson, Oliver E. (2002) "The Theory of the Firm as Governance Structure: From Choice to Contract," Journal of Economic Perspectives, 16 (Spring).

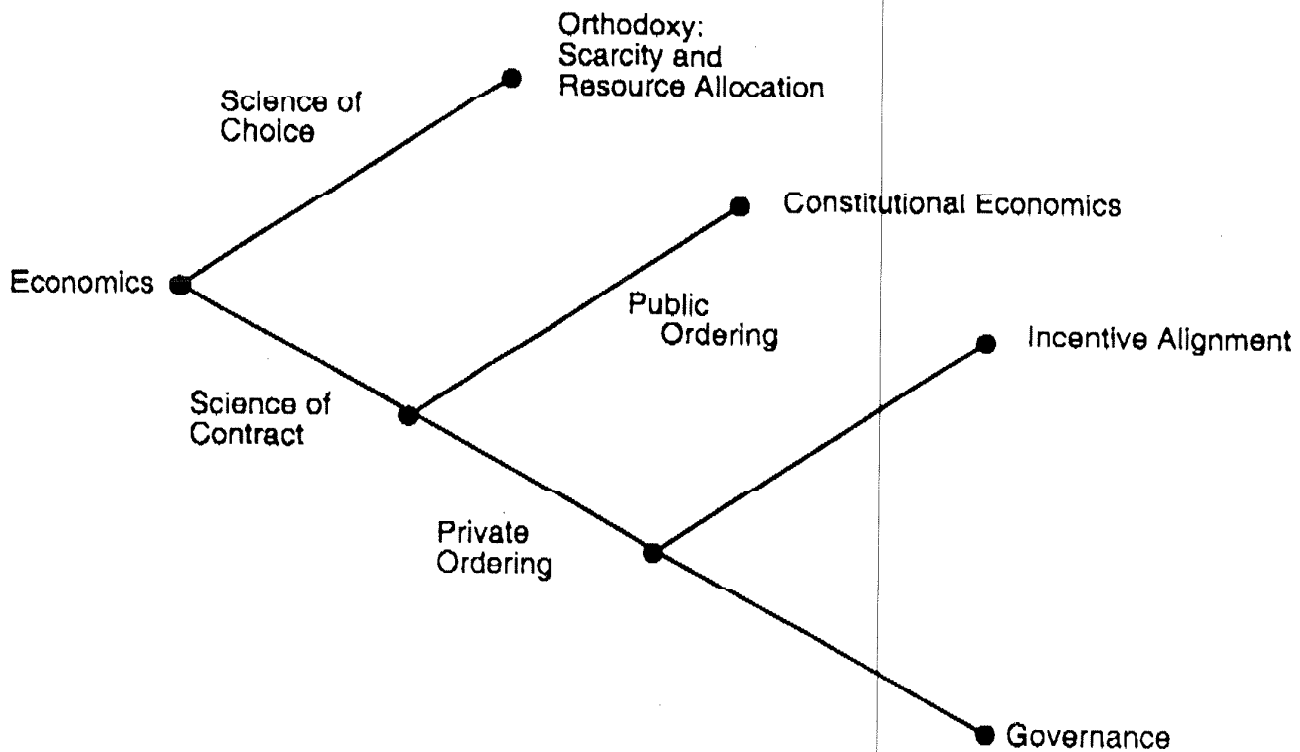


FIGURE 1
The Sciences of Choice and Contract

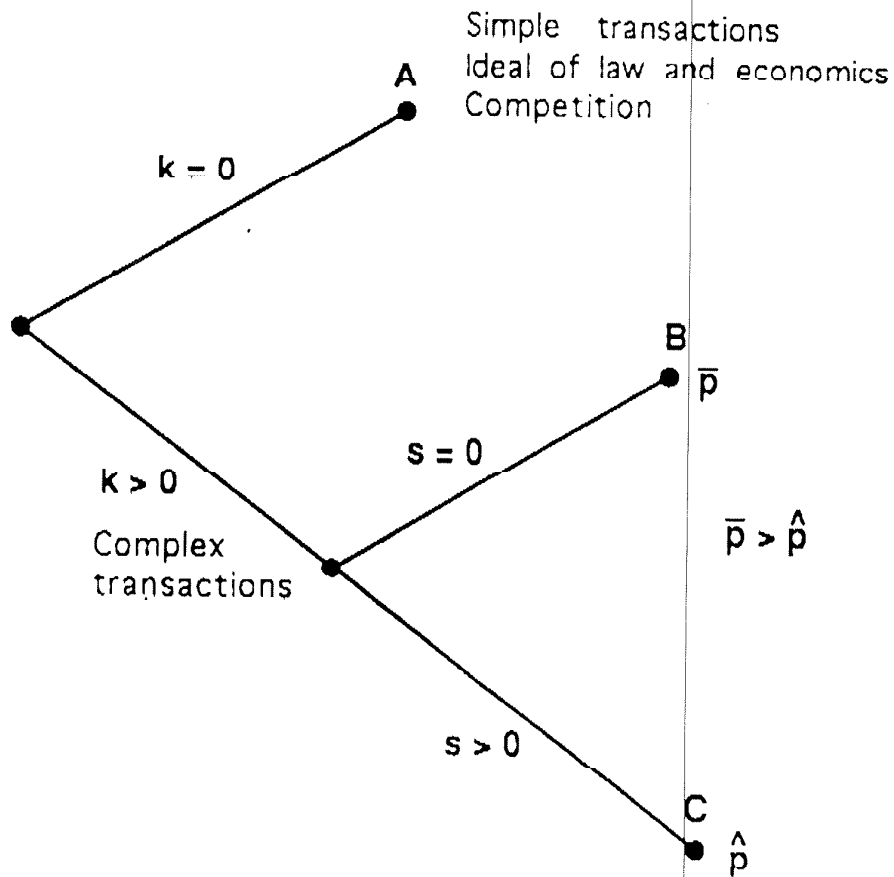


Figure 2. Simple Contractual Schema

k: denotes dependency (or the lack thereof)

s: denotes security features (or the lack thereof)

p: denotes price